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at 156°. This was the meridian of maximum in August, so that the activity on the hemisphere, of which 156° is the central meridian, is now greatly reduced: in fact, the direction of the curve is reversed. From this meridian the curve manifests increased energy. The two curves for April and May presents as perfect an agreement in their features as those of August, September, and October, 1861. At the present time the hemisphere of greatest energy is marked by the central meridian 300°, or thereabout.

On a remarkable Chain of Lunar Craters forming a portion of the Southern Boundary of the Mare Serenitatis. By W. R. Birt, Esq.

The chain of Craters I am about to describe is but very seldom seen. I have only obtained three good views of it during the last eighteen months, viz., in 1861, April 16; 1862, May 5 and October 29. It is situated on the southern border of the Mare Serenitatis, between the conspicuous Crater Menelaus and a promontory running into the apparently open space forming the common boundary of the Maria Tranquillitatis and Serenitatis. This promontory is known as the Promontorium Acherusia.

The interest attaching to this chain of Craters will depend most probably on its having been overlooked both by Schröter, and Beer and Mädler. Although the Craters are small (they are larger than those in the neighbourhood of Eratosthenes) and situated on a narrow wall of rock running between the Maria Tranquillitatis and Serenitatis (if it be not situated on the surface of the Mare Tranquillitatis), the wall of rock rising nearly perpendicularly from level surfaces on the north and south of it, yet the locality is sufficiently remarkable, combined with the rarity of catching a sight of the Craters, to render it important to place a notice of their existence on record in the archives of this Society.

I first saw them in the year 1861, on April 16, my observations extending from 8 hours to 9·30, Greenwich Mean Time. The following is a quotation from my Journal of that date:—

"The Mare Serenitatis is separated from the Mare Tranquillitatis by a well-defined steppe, the Serenitatis being at the lower level.* From the Apennines, past Menelaus, to a point opposite Plinius, the border of the Mare Serenitatis is rugged, the highest portion of the wall from Menelaus to the terminating point consisting of a chain of small Craters—they are on the surface of the Mare Tranquillitatis, and appear at this epoch exceedingly interesting from their proximity to each other, the

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* This steppe is admirably shown on one of Mr. De La Rue's photographs.

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black shadows contrasting with the highly illuminated opposite rims. From the most western of these Craters, to Webb's Mount Argæus, the surface is very smooth, but the line of demarcation between the Maria Tranquillitatis and Serenitatis is well seen, and is exceedingly well defined towards its eastern extremity, near the small Craters. It is almost lost in the neighbourhood of Mount Argæus . . . . These Craters are exceedingly interesting, projecting, as they do, *alone* without any accompanying *ruggedness* into the smooth surface of the Mare Tranquillitatis."

On the 5th of May, 1862, I had an opportunity of minutely inspecting these Craters, and described in my Journal the wall in which they occur, from the Promontorium Acherusia to about one-third of the distance from the promontory to the bright Crater Menelaus, when the terminator skirted the eastern edge of the Mare Serenitatis. A quotation from my Journal will be the best description I can give:

"About two-thirds of the wall S.S.W. of the Mare Serenitatis, from the Promontorium Acherusia to the bright Crater Menelaus, is formed of small Craters interspersed with brighter portions hardly of the nature of peaks. The termination of the promontory is a bold, jutting, but low rock; it is succeeded by three deep Craters, hardly distinguishable from each other; they are quite in shadow. Two rocks and another Crater, which is isolated, form the further continuation of the wall. None of these Craters are given by Beer and Mädler. They are succeeded by a somewhat low portion of the wall to near the locality of the Crater B, of Beer and Mädler, where a jutting rock is seen. Adjoining and abutting on the Crater B, is another small, deep Crater, making the fifth from the termination of the promontory. The Crater B is nearly double the size of the small one on the border north of it, and it has a mountain on the south-west. Schröter has delineated it as being very much larger than Taquet, he marked it *g*. At a very little distance from the small Crater on the border, and separated from it by a low rock, are two more small Craters of the same character; they form the base of an isosceles triangle, Taquet being the apex. Another mass of rock intervenes, and we have the eighth Crater from the promontory. These Craters are pretty nearly of the same size, and differ but slightly from Taquet in this respect. The last two are the only Craters of the eight given by Beer and Mädler.

"In Beer and Mädler's map Taquet is given as larger than B. B is fully double the size of Taquet, and A on the south of the high land on which B is situated, and also on the border of the Mare Tranquillitatis, is about the same size as B. A is indicated as the largest on the map."

Schröter marks A (*e*), it is a little larger than Taquet in his delineation.

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In connexion with these differences from Beer and Mädler's map, another Crater on the border of the Mare Serenitatis may be specified; it was observed the same evening, and is not indicated on the map. The record of it is as follows:—

"The depression *b*, Beer and Mädler, south-west of Menelaus, is finely marked; there is a Crater nearly north of it *on the wall*, it is larger than either of the previous eight, and is not in Beer and Mädler's map. This Crater is found in Schröter's figures marked *m*, also the shallow depression figured as a *deep* Crater marked *f*, the second instance of this kind which I have met with."

On the 29th of October I have the following notice: "The Craters on the ridge terminated by the Promontorium Acherusia very apparent, the terminating point *bright*."

The almost extreme difficulty of seeing these Craters, as they are visible but for a short time after sunrise—I have not seen them under the evening illumination—will, I apprehend, fully account for their having been omitted by the Selenographers above named. On a suspicion crossing the mind of the darker portions of the south wall of the Mare Serenitatis being the *shadows of cliffs*, I made the following note under date of May 5, 1862:

"The regularity appears to be too great to countenance this idea, the interior illumination is perceptible in that abutting on B of Beer and Mädler, also in the eighth, which is given both by Schröter, and Beer and Mädler, nor do the shadows fall quite in the direction for giving them the character of shadows of cliffs."

Some other communications received prior to the November Meeting, will be published in the next number of the *Monthly Notices*.—Ed.

Minor Planet (78) Clytia.

The Planet was discovered by Mr. Tuttle, at Harvard College, on April 7 (see *Ast. Nach.* Nos. 1368, 1370, 1374). Elements have been computed by Mr. Hall and Mr. Safford; those of Mr. Safford, from observations of April 7, 18, 25, and May 8 and 26, are

Epoch 1862, May $2^d 0^h$, Washington M.T.

$$\left.\begin{array}{lcr} L & = & 184^\circ\ 30'\ 53''\!\cdot\!6 \\ \Pi & = & 61\ \ 11\ \ 13\cdot5 \\ \Omega & = & 7\ \ 32\ \ 23\cdot7 \end{array}\right\}\ \text{Mean Equinox } 1860\cdot0$$

$$\begin{array}{lcr} \iota & = & 2\ \ 24\ \ 49\cdot6 \\ \varphi & = & 2\ \ 31\ \ 14\cdot4 \\ \mu & = & 13\ \ 35\cdot029 \\ \log a & = & 0\cdot425889. \end{array}$$